Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application.

Listing of Claims:

1   Claim 1. (*Currently Amended*) A quality control device for voice packet communications

2   for transmitting voice packets through a quality non-assurance type network, the device

3   comprising:

4   a buffer memory for temporarily storing voice packets received through the network and

5   forming a queue of the received voice packets;

6   queue operating means for operating the queue in accordance with an operation control

7   signal to be supplied;

8   sequence examining means for examining ~~vocal~~ like voice-absence properties of a

9   sequence of voice information contained in a plurality of voice packets that constitute the queue

10   stored in the buffer memory; and

11   operation control means for changing the operation control signal in accordance with an

12   examination result of the sequence examining means,

13   wherein said operation control means includes an operation position determining portion

14   for determining an operation position corresponding to voice packets having like-voice absence

15   properties, being dispersed onto the queue and outputting an operation position specifying signal

16   as the operation control signal by the use of an examination result of the sequence examining

17   means, and said queue operating means includes a deletion operating portion for deleting from

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18   the queue voice packets having like-voice absence properties, being dispersed onto the queue

19   which correspond to an operation position on the queue according to the operation position

20   specifying signal being supplied.

Claim 2 (*Canceled*)

1   Claim 3. (*Currently Amended*) The quality control device of claim 1, further comprising:

2   threshold managing means for managing an upper limit threshold set at least on an upper

3   limit side with respect to a length of the queue; and queue length monitoring means for

4   monitoring a relationship between a length of the queue and the upper limit threshold; wherein:

5   the sequence examining means includes: a decoding importance detecting portion for

6   detecting decoding importance that is an importance degree when each voice packet is decoded

7   by examining a sequence of voice information contained by a plurality of voice packets that

8   constitute a queue stored in the buffer memory; and

9   a decoding importance storing portion for temporarily storing the decoding importance

10   detected by the decoding importance detecting portion in correspondence with each voice packet

11   that constitutes the queue; and the queue operating means includes: a priority deletion operating

12   portion for preferentially deleting a voice packet assigned to decoding importance whose

13   importance degree is low from among voice packets being dispersed onto the queue, from the

14 queue when the queue length monitoring means detects that the queue is longer than the upper

15 limit threshold.

1 Claim 4. (*Original*) The quality control device of claim 1, further comprising:

2 dual-talk duration extension/contraction tendency detecting means for detecting an

3 extension/contraction tendency of a length of dual-talk duration during which both the voice

4 signal on the voice reception path and the voice signal on the voice transmission path reach a

5 state of voice presence by making a voice presence/absence judgement for a voice signal on a

6 voice reception path corresponding to a transmission direction of a voice packet that constitutes

7 the queue and a voice signal on a voice transmission path opposite to the direction where a voice

8 is received;

9 threshold managing means for managing an upper limit threshold set at least on an upper

10 limit side with respect to a length of the queue;

11 first upper limit threshold changing means for changing the upper limit threshold; and

12 queue length monitoring means for monitoring a relationship between a length of the

13 queue and an upper limit threshold;

14 wherein the first upper limit threshold changing means changes the upper limit threshold

15 in accordance with an extension/contraction tendency detected by the dual-talk duration

16 extension/contraction tendency detecting means.

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1   Claim 5. (*Original*) The quality control device of claim 1, further comprising:

2   increase/decrease tendency detecting means for detecting an increase and decrease

3   tendency of a frequency in which a large and small relationship between voice power on a voice

4   reception path and voice power on a voice transmission path changes the per unit time by

5   detecting voice power for a voice signal on the voice reception path corresponding to a

6   transmission direction of a voice packet that constitutes the queue and a voice signal on the voice

7   transmission path opposite to the direction where a voice is received;

8   threshold managing means for managing an upper limit threshold set at least on an upper

9   limit side with respect to a length of the queue; and second upper limit threshold changing means

10   for changing an upper limit threshold in accordance with an increase and decrease tendency

11   detected by the increase/decrease tendency detecting means.

1   Claim 6. (*Currently Amended*) The quality control device of claim [[1]] 9, further

2   comprising:

3   lower limit threshold managing means for managing a lower limit threshold set on a

4   lower limit side with respect to a length of the queue; and

5   queue length/lower limit monitoring means for monitoring a relationship between a

6   length of the queue and a lower limit threshold; wherein the queue operating means includes

7   lower limit correspondence insertion operating portion for inserting a complementary voice

8   packet that contains predetermined voice information so as to be dispersed onto the queue when

9   the queue length/lower limit monitoring means detects that the queue is shorter than the lower

10   limit threshold.

1   Claim 7. (*New*) The quality control device of claim 1, further comprising:

2   dual-talk duration extension/contraction tendency detecting means for detecting an

3   extension/contraction tendency of a length of dual-talk duration during which both the voice

4   signal on the voice reception path and the voice signal on the voice transmission path reach a

5   state of voice presence by making a voice presence/absence judgement for a voice signal on a

6   voice reception path corresponding to a transmission direction of a voice packet that constitutes

7   the queue and a voice signal on a voice transmission path opposite to the direction where a voice

8   is received;

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9   threshold managing means for managing an upper limit threshold set at least on an upper

10   limit side with respect to a length of the queue;

11   first upper limit threshold changing means for changing the upper limit threshold; and

12   queue length monitoring means for monitoring a relationship between a length of the

13   queue and an upper limit threshold;

14   wherein the first upper limit threshold changing means lowers the upper limit threshold

15   when a tendency that the dual-talk duration extends is detected by the dual-talk duration

16   extension/contraction tendency detecting means, and the first upper limit threshold changing

17   means raises the upper limit threshold when a tendency that the dual-talk duration contracts is

18   detected by the dual-talk duration extension/contraction tendency detecting means.

1   Claim 8. (*New*) The quality control device of claim 1, further comprising:

2   increase/decrease tendency detecting means for detecting an increase and decrease

3   tendency of a frequency in which a large and small relationship between voice power on a voice

4   reception path and voice power on a voice transmission path changes the per unit time by

5   detecting voice power for a voice signal on the voice reception path corresponding to a

6   transmission direction of a voice packet that constitutes the queue and a voice signal on the voice

7   transmission path opposite to the direction where a voice is received;

8   threshold managing means for managing an upper limit threshold set at least on an upper

9   limit side with respect to a length of the queue; and

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10   second upper limit threshold changing means for lowering an upper limit threshold when

11   an increase tendency exists in a count value outputted by the increase/decrease tendency

12   detecting means that outputs a positive value when a power at the decoder's side is large, outputs

13   a negative value when the power at the decoder's side is small, and counts zero-cross times of the

14   output value, said second upper limit threshold changing means raising the upper limit threshold

15   when a decrease tendency exists in the count value output by the increase/decrease tendency

16   detecting means.

1   Claim 9. (*New*) A quality control device for voice packet communications for

2   transmitting voice packets through a quality non-assurance type network, the device comprising:

3   a buffer memory for temporarily storing voice packets received through the network and

4   forming a queue of the received voice packets;

5   queue operating means for operating the queue in accordance with an operation control

6   signal to be supplied;

7   sequence examining means for examining vocal properties of a sequence of voice

8   information contained in a plurality of voice packets that constitute the queue stored in the buffer

9   memory; and

10   operation control means for changing the operation control signal in accordance with an

11   examination result of the sequence examining means,

12   wherein the operation control means includes an operation position determining portion

13   for determining an operation position corresponding to voice packets having like-voice absence

14   properties, being dispersed onto the queue and outputting an operation position specifying signal

15   as the operation control signal by the use of an examination result of the sequence examining

16   means, and

17   the queue operating means includes an insertion operating portion for inserting a

18   complementary voice packet that contains predetermined voice information into voice packets

19   having like-voice absence properties, being dispersed onto the queue which correspond to an

20   operation position on the queue according to the operation position specifying signal to be

21   supplied.